

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Please amend claims 1-7, and add new claims 8-10 as follows:

1. (currently amended) A ~~pedal reaction force applying~~ An apparatus for applying a predetermined pedal reaction force to a pedal member which is operationally depressed pivotably supported by a support shaft and which is depressible to be pivoted about a support an axis of said support shaft, said apparatus being characterized by comprising:

a changeable reaction-force applying device for applying said pedal reaction force to said pedal member and changing said pedal reaction force; and

a reaction-force controlling device for activating controlling said changeable reaction-force applying device such that said pedal reaction force is changed on the basis of a depressing stroke of said pedal member, according to a predetermined pattern of change of said pedal reaction force.

2. (currently amended) A ~~pedal reaction force applying~~ An apparatus according to claim 1, characterized in that

wherein said changeable reaction-force applying device includes:

a spring member which is connected, at one of opposite ends thereof, with a predetermined connected portion of said pedal member that is distant from said support axis of said support shaft, and which is mechanically elastically deformed upon

depression of said pedal member, for thereby applying said pedal reaction force to said pedal member; and

a reaction-force changing mechanism for changing said pedal reaction force, by displacing ~~said one of said opposite ends of said spring member relative to said connected portion of said pedal member, or by moving the other of said opposite ends of said spring member toward and away from said connected portion of said pedal member.~~

3. (Currently amended) A ~~pedal reaction force applying~~ An apparatus according to claim 2, characterized in that

wherein said reaction-force changing mechanism includes a cam member which is pivotable about an axis of a pivot shaft and which has an engaged portion whose distance from said axis of said pivot shaft is continuously changed as viewed in a circumferential direction of said cam member,

and wherein said engaged portion of said cam member is held in engagement with said other of said opposite ends of said spring member, so that said other of said opposite ends of said spring member is movable toward and away from said connected portion of said pedal member, by said engaged portion as a result of pivot the pivotal motion of said cam member.

4. (Currently amended) A ~~pedal reaction force applying~~ An apparatus according to claim 2, characterized in that

wherein said reaction-force changing mechanism includes a feed screw mechanism for linearly moving a spring seat which is held in engagement with said other of said opposite ends of said spring member, toward and away from said connected portion of said pedal member, by action of a screw

and wherein said feed screw mechanism includes an externally threaded shaft which is rotatable about an axis thereof and which is held in engagement with an internally threaded hole formed in a spring seat that is held in engagement with said other of said opposite ends of said spring member.

5. (Currently amended) A pedal reaction force applying An apparatus according to any one of claims 1-4, characterized in that claim 1, wherein said reaction-force controlling device includes a transmission mechanism which mechanically connects said pedal member with said changeable reaction-force applying device, and which changes said pedal reaction force by mechanically activating said for transmitting pivot motion of said pedal member to said changeable reaction-force applying device upon depression of said pedal member.

6. (Currently amended) A pedal reaction force applying An apparatus according to any one of claims 1-4, characterized in that claim 1, wherein said reaction-force controlling device includes a stroke sensor for electrically detecting said depressing stroke of said pedal member, and an electronic controller for electrically controlling said changeable reaction-force applying device on the basis of said depressing stroke of said pedal member detected by said stroke sensor,

~~and in that~~

~~and wherein said changeable reaction-force applying device is equipped with includes a drive device for changing said pedal reaction force on the basis of a signal supplied from said electronic controller.~~

7. (Currently amended) A ~~pedal reaction force applying~~ An apparatus for applying a ~~predetermined~~ pedal reaction force to a pedal member which is ~~operationally depressed~~ pivotably supported by a support shaft and which is depressible to be pivoted about a support ~~an axis of said support shaft~~, said apparatus being characterized by comprising:

~~a cam member which is disposed in a predetermined position distant from said support axis and which is pivotable about an axis of a pivot shaft that is parallel with said support axis of said support shaft, said cam member having and which has an engaged portion whose distance from said axis of said pivot shaft is continuously changed as viewed in a circumferential direction of said cam member,~~

~~a transmission mechanism which mechanically connects said pedal member with said cam member, and which mechanically pivots for transmitting pivot motion of said pedal member to said cam member upon depression of said pedal member and~~

~~a spring member which is interposed between said cam member and a predetermined connected longitudinally intermediate portion of said pedal member that is distant from said support axis of said support shaft, said spring member being mechanically elastically deformed upon depression of said pedal member, for thereby applying said pedal reaction force to said pedal member, said spring member having an~~

engaged end portion which is held in engagement with said engaged portion of said cam member and which is displaceable following a profile of said engaged portion of said cam member, for thereby changing said pedal reaction force applied to said pedal member.

8. (New) An apparatus according to claim 3, wherein said engaged portion of said cam member is provided by an outer circumferential surface of said cam member.

9. (New) An apparatus according to claim 3,
wherein said reaction-force controlling device includes a transmission mechanism which connects said pedal member with said cam member, for transmitting a pivotable motion of said pedal member to said cam member upon depression of said pedal member,

and wherein said transmission mechanism includes a first pulley which is pivotable together with said pedal member about said axis of said support shaft, a second pulley which is pivotable together with said cam member about said axis of said pivot shaft, and a timing belt which connects said first and second pulleys.

10. (New) An apparatus according to claim 3,
wherein said reaction-force controlling device includes a transmission mechanism which connects said pedal member with said cam member, for transmitting a pivotable motion of said pedal member to said cam member upon depression of said pedal member,

and wherein said transmission mechanism includes a first meshing member which is pivotable together with said pedal member about said axis of said support shaft, and a second meshing member which is pivotable together with said cam member about said axis of said pivot shaft and which is held in meshing engagement with said first meshing member.